

Notice of Allowability

Application No.

10/698,716

Applicant(s)

JENSEN ET AL.

Examiner

Art Unit

Teresa J. Walberg

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Request for Continued Examination filed 21 June 2005.
2. ☒ The allowed claim(s) is/are 1-32.
3. ☒ The drawings filed on 31 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 6/14/05, 6/21/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Teresa J. Walberg
Teresa J. Walberg
Primary Examiner
Art Unit 3753

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

With respect to claim 1, the prior art of record does not disclose or render obvious a heat exchanger as claimed including a plurality of tubes and at least one layer of thermal buffer members arranged in a direction parallel to the tubes, each of the thermal buffer members being separated by a space there between and each of the thermal buffer members having a diameter larger than the diameter of at least one tube of the plurality of tubes.

With respect to claim 12, the prior art of record does not disclose or render obvious a heat exchanger as claimed including a plurality of tubes and at least one layer of thermal buffer members arranged in a direction parallel to the tubes, each of the thermal buffer members being separated by a space there between, and at least one layer of thermal buffer members having an annular cross-sectional shape and being concentrically disposed inside an annular cross-sectional shape of the plurality of tubes.

With respect to claim 13, the prior art of record does not disclose or render obvious a heat exchanger as claimed including a plurality of tubes and at least one layer of thermal buffer members arranged in a direction parallel to the tubes, each of the thermal buffer members being separated by a space there between, and a gap in a longitudinal direction of each of the solid thermal buffer members, the gap being sufficient size to allow for thermal expansion.

With respect to claim 20, the prior art of record does not disclose or render obvious a heat exchanger as claimed including a plurality of tubes and at least two

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layers of thermal buffer members arranged in a direction parallel to the tubes, each of the thermal buffer members having a diameter larger than the diameter of at least one tube of the plurality of tubes, and a gap in a longitudinal direction of each of the solid thermal buffer members, the gap being sufficient size to allow for thermal expansion.

With respect to claim 24 and 26, the prior art of record does not disclose or render obvious a heat exchanger as claimed including a plurality of tubes, at least two layers of thermal buffer members arranged in a direction parallel to the tubes, and a gap in a longitudinal direction of each of the solid thermal buffer members, the gap being sufficient size to allow for thermal expansion.

With respect to claim 27, the prior art of record does not disclose or render obvious a method for transferring energy as claimed including passing a fluid through a plurality of tubes, arranging at least one layer of thermal buffer members in a direction parallel to the tubes, and the thermal buffer members having a diameter larger than the diameter of the plurality of tubes.

The examiner interprets the phrase "layer of thermal buffer members" to require a plurality of members making up the layer. Thus sleeve 5 in the Japan patent abstract (5-187792) would not be considered to include a layer of buffer members since it appears to be formed of a single member rather than a plurality of members. It is further noted with respect to claim 27 that even if the sleeve 5 of the Japan document were made of a plurality of members, the document does not disclose the step of passing a fluid around the thermal buffer members.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on 571-272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Teresa J. Walberg
Primary Examiner
Art Unit 3753